

## NEW RECORDS FOR *PHYLLODES IMPERIALIS SMITHERSI* SANDS (LEPIDOPTERA: EREBIDAE) FROM SOUTHEASTERN QUEENSLAND AND NORTHEASTERN NEW SOUTH WALES

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### Abstract

New localities are provided for *Phyllodes imperialis smithersi* Sands, 2012 in southeastern Queensland and northeastern New South Wales.

### Introduction

Sands (2012) described the southern population of *Phyllodes imperialis* Druce, 1888 as subspecies *P. i. smithersi*. This subspecies is of particular interest as it is listed both federally and in New South Wales as an endangered subspecies. Sands (2012) provided distribution details based on a limited number of known specimens, a number of personal communications and some previously published papers, stating that, in Queensland, *P. i. smithersi* occurred from Kin Kin Creek, about 25 km south-east of Gympie, to the Qld-NSW border. Importantly, many exact locations were given. They were, from north to south, Blackall Range, some 50 km south of Kin Kin Creek, Witta, Conondale, Maleny, Conondale Range, Bellthorpe and Mount Mee, about 40 km north-west of Brisbane. The next localities cited in Queensland were approximately 135 km south of Mount Mee at Lamington and Springbrook near the Qld-NSW border. In New South Wales, *P. i. smithersi* is recorded from the Border Ranges, Mount Warning, Billinudgel, Richmond Range, Richmond River and, at the southern end of its range, at Dorrigo, Rosewood River, Huonville, Bellinger Island and Bellinger. These, plus the new records, give this subspecies a coastal range of about 470 km.

### New records

#### *Phyllodes imperialis smithersi* Sands, 2012 (Fig. 1)

*Material examined.* NEW SOUTH WALES: 2 ♂♂, 2 ♀♀, 3.6 km due north of Tyalgum, far NE corner of NSW, 28°19'29.45"S, 153°12'44"E, alt. 90 m, 11.iii.2012, R.B. Lachlan. Australian Museum K412769-72.

*Comments.* It appears that this subspecies may be locally common at times over the summer months but has a scattered, patchy distribution throughout its current range. This is almost certainly due to the fact that its food plant, *Carronia multisepealea* F. Muell. (Menispermaceae), is an endemic subtropical vine, largely restricted to 'old growth' subtropical rainforests on the coast and nearby ranges below 1,000 m (Sands 2012). Most records are centred around the Maleny region, south-west of Nambour, the eastern Qld-NSW border areas and at the southern end of its range around the Dorrigo-Bellinger River region. There are no published records between the Richmond River and the Dorrigo area, a distance of around 160 km.



**Fig. 1.** *Phyllodes imperialis smithersi*: male.

Light traps run at numerous sites on both sides of the Qld-NSW border over a period of many years, primarily during the summer months, failed to record a single sighting of *P. i. smithersi*; however, in early March 2011, a single specimen came to light at Binna Burra, 28°11'45"S, 153°11'14"E, alt. 780 m, inside the NE corner of Lamington National Park, but flew off before it could be collected. Shortly after, a Binna Burra staff member showed the author a recent photograph he took of a specimen near a light at the Binna Burra Lodge. This confirmed its presence in the immediate area.

A year later, in early March 2012, a light trap was run for three nights at 28°19'29.45"S, 153°12'44"E, close to the eastern edge of Limpinwood Nature Reserve in NE New South Wales. On one of the nights two males and two females were collected. Three of the specimens showed reasonable wear, indicating they had been on the wing for some time. It should be noted that this species rarely comes to light, even in areas where it and its food plant are locally abundant

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### Reference

SANDS, D.P.A. 2012. Review of Australian *Phyllodes imperialis* Druce (Lepidoptera: Erebidae) with description of a new subspecies from subtropical Australia. *Australian Entomologist* 39(4): 281-292.